TRAFFIC INCIDENT MANAGEMENT COMMITTEE

For San Mateo County

January 30, 2008
11:30am – 1pm

San Carlos Library
610 Elm St
Conference Room B (2nd Floor)
San Carlos, CA 94070

LUNCH WILL BE PROVIDED

AGENDA

I. Introductions

II. Meeting Minutes from Oct. 4, 2007*

III. Draft Alternate Route Plan*
(Review/comment on latest updates)

IV. Performance Measures**
(Review defined measures)

V. MOU / Cooperative Agreement
(Status update)

VI. Next Steps
(Circulation of Draft to Stakeholders, Perform outreach)

VII. San Mateo County Smart Corridors Project*
(Status update on development of PSR; schedule; next steps)

VIII. Other

* Attached
** Handout at meeting

Traffic Incident Management Committee Meeting
Attendance Log
Jan 2008

Name		Agency	Email	Phone	Jul-06	Aug-06	Sep-06	Dec-06	Feb-07	Mar-07	May-07	Jun-07	Jul-07	Oct-07
Duncan	Jones	Atherton	djones@ci.atherton.ca.us	650-752-0532		x								
Ray	Davis	Belmont	rdavis@ci.belmont.ca.us	650 595-7459		x					x			x
Randy	Breault	Brisbane	rbreault@ci.brisbane.ca.us	415 508-2131	x						x			
Augustine	Chou	Burlingame	achou@burlingame.org	650-558-7230		x		x			x	x		
Syed	Murtuza	Burlingame	SMurtuza@burlingame.org	650-558-7230	x									
Bob	Salazar	Caltrans - Maintenace	Robert.Salazar@dot.ca.gov	408-452-7120	x	x								
Raymundo	Elias	Caltrans - Maintenace	Raymundo.Elias@dot.ca.gov	650-358-4129	x	x							x	
Kane	Wong	Caltrans - TMC	kane_wong@dot.ca.gov	510-286-5917	x	x	x			x				
Brian	Lee	Caltrans - TMC										x		x
Barry	Loo	Caltrans - Traffic Mgt.	Barry.Loo@dot.ca.gov	510-286-6910	x	x	x	x	x	x	x			
John	Parkin	Central County Fire Dept	jparkin@centralcountyfd.org	650-558-7600		x					x			
Bill	Reilly	Central County Fire (ret.)									x			
Bridget	Lott	CHP - Redwood City	blott@chp.ca.gov	650-369-6261										
Matt	Otterby	CHP - Redwood City	Motterby@chp.ca.gov	650-369-6261		x	x	x				x		
Alex	Radich	CHP - Redwood City	aradich@chp.ca.gov	650-369-6261							x			
Brian	Molver	County OES	bmolver@co.sanmateo.ca.us	650-363-4448	x							x	x	
Shirley	Chan	Daly City	schan@dalycity.org	650-991-8231	x			x	x	x	x			x
Ron	Sibley	East Palo Alto Police												
~~Fernando~~	~~Bravo~~	East Palo Alto	~~fbravo@cityofepa.org~~	~~650-853-3117~~	~~x~~									
Stan	Workman	Foster City	sworkman@fostercity.org	650-286-3285	x									
Matt	Martell	Foster City Police	mmartell@fostercity.org	650-286-3317	x			x		x	x		x	
Martin	Ticas	Foster City Police	mticas@fostercity.org	650-286-3322										x
Chip	Taylor	Menlo Park	CWTaylor@menlopark.org	650-330-6771	x	x		x						
Rene	Baile	Menlo Park	rcbaile@menlopark.org	650-330-6775	x	x						x		
Khee	Lim	Millbrae	klim@ci.millbrae.ca.us	650-259-2347										
Ronnald	Popp	Millbrae	rpopp@ci.millbrae.ca.us	650-259-2418										
Radiah	Victor	MTC	rvictor@mtc.ca.gov	510-817-5719	x						x	x		x
Danielle	Stanislaus	MTC	dstanislaus@mtc.ca.gov	510-817-5737						x				x
Neil	Uyeda	Redwood City Police	nuyeda@redwoodcity.org	650-780-7187							x	x		

Name		Agency	Email	Phone	Jul-06	Aug-06	Sep-06	Dec-06	Feb-07	Mar-07	May-07	Jun-07	Jul-07	Oct-07
Stan	Maupin	Redw ood City Fire	smaupin@redwoocity.org	650-780-7454										x
Rich	Haygood	Redw ood City	rhaygood@redwoodcity.org	650-780-7362										x
		SamTrans												
Matt	Campi	San Bruno Police	mcampi@sanbruno.ca.gov	650-616-7112										x
		San Bruno												
Parviz	Mokhtari	San Carlos	pmokhtari@cityofsancarlos.org	650-802-4202	x									
Paul	Baker	San Carlos	pbaker@cityofsancarlos.org	650-802-4143							x			
Heidi	Morrison	San Carlos Police	hmorrison@cityofsancarlos.org	650-802-4277		x					x			
Gary	Heap	San Mateo	gheap@cityofsanmateo.org	650-522-7307			x	x	x	x	x	x		x
Vivian	Ma	San Mateo	vma@cityofsanmateo.org	650-522-7314		x							x	
Dan	Belville	San Mateo Fire	dbelville@cityofsanmateo.org	650-552-7900		x		x		x				x
Jack	Ratcliffe	San Mateo Police	jratcliffe@cityofssanmateo.org	650-522-7745										x
Robert	Ross	San Mateo Police	rross@cityofsanmateo.org	650-522-7726										x
Gary	Batis	So San Francisco	gary.batis@ssf.net	650-829-8550							x			
Dennis	Chuck	So San Francisco	dennis.chuck@ssf.net	650-829-6663						x	x			x
Ray	Razavi	So San Francisco	ray.razavi@ssf.net	650-829-6664	x									
Frank	McAuley	So San Francisco	frank.mcauley@ssf.net	650-829-3832								x		x
Tracy	Scramaglia	So San Francisco	tracy.scramaglia@ssf.net	650-829-6651										x
Paul	Ritter	So San Francisco Police	paul.ritter@ssf.net	650-829-3934										x
Joe	Finigan	SFPD SFO Traffic	jfinigan@flysfo.com	650-821-7160							x			
~~Kathleen~~	~~Sw indler~~	~~SFO - Bureau of Design~~	~~kathleen.sw indler@flysfo.com~~	~~650-821-3351~~								x	x	
Zeke	Zamora	SFO - Plan/Design/Con	zeke.zamora@flysfo.com	650-821-6532							x			
John	Hoang	C/CAG	jhoang@co.sanmateo.ca.us	650-363-4105	x	x	x	x	x	x	x	x	x	x
Richard	Napier	C/CAG	rnapier@co.sanmateo.ca.us	650-599-1420			x	x					x	x
Sandy	Wong	C/CAG	slw ong@co.sanmateo.ca.us	650 599-1409		x		x			x		x	x
Randy	Durrenberger	Kimley-Horn & Assoc	randy.durrenberger@kimley-horn.com	510-625-0712						x	x		x	x
Elbert	Chang	Kimley-Horn & Assoc	elbert.chang@kimley-horn.com	510-625-0712							x	x	x	x
Margaret	Cortes	Kimley-Horn & Assoc	margaret.cortes@kimley-horn.com	510-625-0712							x			
Kali	Rama	Kimley-Horn & Assoc		510-625-0712										x
Pat	Noyes	Pat Noyes	pat@patnoyes.com	303-440-8171							x			x

Traffic Incident Management Committee
Meeting Minutes

October 4, 2007

Attendees:

Dennis Chuck (SSF)
Ray Davis (Belmont PW)
Shirley Chan (Daly City PW)
Danielle Stanislaus (MTC)
Gary Heap (San Mateo PW)
Randy Durrenberger (KHA)
Elbert Chang (KHA)
Pat Noyes (Pat Noyes Assoc)
John Hoang (C/CAG)
Barry Loo (Caltrans – Traffic Mgmt.)
Brian Lee (Caltrans – TMC)
Radiah Victor (MTC)
Dan Belville (San Mateo FD)
Frank McAuley (SSF PW)
Tracy Scramaglia (SSF PW)
Rich Haygood (RWC PW)
Kalai Rama (KHA)
Stan Maupin (RWC FD)
Martin Ticas (Foster City PD)
Jack Ratcliffe (San Mateo PD)
Robert Ross (San Mateo PD)
Matt Campi (San Bruno PD)
Paul Ritter (SSF PD)
Sandy Wong (C/CAG)
Richard Napier (C/CAG)

Traffic Management Coordination Workshop (10am-1pm)

Communication Diagram Comments:

- Each public safety (police) agency is a Public Service Access Point (PSAP). They can do landline patch transfers of calls if it would be more appropriate for another agency to respond.
- Currently all 911 cell phone calls are automatically routed to CHP. Effort underway to route 911 cell phone calls to nearest local PSAP based on location (change in cell phone technology).
- Local police officers from different agencies can have direct radio communications with each other (Tactical Channel: "Green band"). Local police officers typically do not have direct radio communications to CHP officers (dispatch to dispatch coordination). Officer mentioned that the "Calcor" (California Emergency Coordination) Channel could be used (in theory), but was unsure how/if this was done.
- Public works crew and emergency contact for some local agencies (e.g., San Bruno, San Mateo, others?) have radio communication to local police dispatch using the police/ city radios. Other agencies (e.g., Belmont, South San Francisco) have communication through Nextel/ cell phones.
- Fire cannot talk directly to CHP-- need to go through County Dispatch.
- Add 511 to diagram receiving information from CHP dispatch and Caltrans TMC (currently). Future information could include the implemented alternative route by local agencies (local agencies pass route to CHP dispatch who passes it to 511.)

Action List/ Matrix Comments (includes comments from scenarios discussion)

- Responding officer is not always thinking about the traffic management aspects of incident management and the delay in getting information to the dispatcher can increase the "traffic management response time." Currently it appears that dispatcher determines the level of severity? Caltrans TMC operators report that they sometimes need to prompt CHP dispatch to get/provide traffic management information (e.g., lanes blocked, expected severity).
- FSP not included since it relates more to incident clearance than traffic management
- Level 1 Severity:
    - CHP typically handles by itself, responding, dispatching FSP. May contact Caltrans TMC if lanes blocked (for FYI only).
    - CHP may ask local agencies or Caltrans to verify freeway incident reports particularly for Level 1. Local agencies are often the first and only responder. Matrix should be modified to reflect this. Local agency would report information to CHP.

- Level 2 Severity:
    - Fire typically responds and would be on scene first (CHP en route). Fire typically not trained in traffic management evaluation—not trained on estimating how long an incident would last. If anything, could report how many lanes are closed.
    - Caltrans may lift HOV restrictions. How is this information conveyed?
    - Local agency to determine alternative route. County dispatch and local agency typically have list of current road closures on-hand.
    - Caltrans D4 has a pager list for Level 2+ incidents in the District that goes to media, Caltrans management, 511 and stakeholders. They send an email text with information. Number ranges from 4 a day to 20 a day.
    - One suggestion is to include San Mateo County Communications on this list and they could pass along incident information relevant to San Mateo County. County has their own RSAND system that can send messages to email address and pagers. If County has a question about the page/ need further information, they can contact Caltrans for more info/ clarification.
- Level 3 Severity:
    - Local agencies to choose alternate plan
    - Some local agencies (e.g. San Mateo PD) have portable CMS that they would deploy.
    - Future technology- trailblazers
        - Suggestion for Caltrans to activate trailblazers. If Caltrans asked to do this, they would like to have visual confirmation of traffic conditions along route in conjunction with activation responsibility. Would their be a cost-effective way not using cameras to provide the information that Caltrans would need for this?
    - Cameras along the route should also be monitored.
    - Existing cameras in Belmont are not used too much by public works. They are more used by Belmont PD for crime monitoring (Caltrain station)
    - Future Flush plans- large amount of green time along route to facilitate flow.
- Miscellaneous comments
    - Need to make more use of technology and anticipate future technologies-- more automation, activate trailblazers remotely, in-vehicle information through 511
    - Public safety and public works would like a specific task checklist for implementing each alternate plan "recipe"-- this level of detail may be unrealistic.
    - Routes/ Plans are very useful for preplanning and for ICS situations. Could also be helpful for orienting new staff and sergeants.
    - Main blocks to implementation: Money, Public works/ public safety coordination, new thinking about traffic management when responding to an incident. Pat reiterated goal is to reduce "traffic management response time"
    - CCAG going after funds, hoping to implement devices in a pilot project in 3-5 years.

- Next steps: refine diagram and matrix, revise Alternative Route Plan, hold table top exercise
- Suggestions/comments for table-top exercise:
    - Don't overdo Level III scenario.
- Be aware that some people are more trained in ICS than others (e.g., San Mateo appears to be very familiar)

- Emergency dispatch needs to be included in the group (as well as CHP).

<u>Performance Measures</u>

- Clear list of goals and objectives has to be specified in order to establish what the performance measures should be.

- Delay or Travel Time seems to be the major issue during an incident. So, CMS could show comparison of travel times between Freeway route and Alternate route so that users can make an informed decision on which route to take.
- Measurement of spatial and temporal extent of congestion might be advisable since it captures the whole incident.
- Among the performance measures listed, most significant ones seem to be (a) Delay (b) Post-Audit Assessment (c) Utilization of ITS Elements
- 'Post Audit Assessment' is to determine whether the alternate routes were beneficial over doing nothing, whether the alternate route plan was used effectively or not, and time taken to implement the alternate route.
- For a Level 3 incident, performance measures could include the time taken to implement the alternate routes.
- Also, emergency dispatch needs to provide input on how it would advise incident responders to bypass incident congestion.
- C/CAG will consider a Cooperative Agreement instead of Memorandum of Understanding to establish future agreements on projects, and O&M.
- The ITS elements to be deployed in the pilot project could be used for dual purposes (i.e. for incident management as well as for special events or traveler information/advisories)

Regular Traffic Incident Management Committee Meeting (1-2pm)

General Discussions

- Current documents in draft stages include the Alternative Route Plan, Infrastructure Improvement Plan, and the Memorandum of Understanding
- Performance measures for the alternate routes under consideration includes: 1) associate average speeds on freeway to the alternate routes; 2) debrief procedure to measure how long it took to implement alternative route, delays experienced
- Look into whether the usage of CCTV cameras are effective and beneficial for monitoring or detecting congestion
- Make sure to include OES in the tabletop training
- C/CAG has plans to develop a project study report for Incident Management Alternative Route (i.e., focusing or portions of US 101 and El Camino Real)

Action Items/Next Steps:
- Refine performance measures and present at the next meeting
- Complete implementation plan based on inputs from the Workshop
- Consider options for MOU

Next Meeting:
- To be announced.

FINAL DRAFT

San Mateo County Alternative Route Plan

Traffic Incident Management (TIM) Response Manual

TABLE OF CONTENTS

EXECUTIVE SUMMARY

The San Mateo Incident Management Committee (IMC) has initiated an effort to develop *Alternate Route Plans for San Mateo County* freeway system. The IMC is led by C/CAG and comprised of representatives of local cities (including public works, fire and police departments), Caltrans Operations and Traffic Management divisions, California Highway Patrol (CHP), Metropolitan Transportation Commission (MTC), San Francisco International Airport (SFO), County Office of Emergency Services (OES), and San Mateo County Transportation Authority (SMCTA). The Alternative Route Plan project focuses on developing formalized traffic incident management response plans for preplanned alternative routes to be utilized in instances of major traffic incidents on the freeway system in which traffic is diverting off the freeway and onto surface streets. A bottom-up process involving local agency cities, public works and public safety was used in selecting the alternate routes for hypothetical incidents. These routes have been chosen to manage and minimize the impacts of the diverted traffic onto the local street network.

The *Alternate Route Plan – Traffic Incident Management (TIM) Response Manual* was developed in various workshops with the IMC members and consists of agency response plans (showing the communications links and expected actions among the various agencies responsible for traffic incident management) and alternative route plans that show the locations of incident locations, alternate routes, impacted jurisdictions, and existing and future infrastructure, including traffic signals, ramp meters, Changeable Message Signs (CMS), pan-tilt-zoom (PTZ) cameras, fixed intersection cameras and trailblazer signs. It serves as a handbook during incidents for the activation of traffic management equipment and personnel and focuses on increasing the coordination between the various San Mateo agencies during a freeway incident when it is desirable to direct traffic along alternative routes on other freeways or local streets. **This goal of this coordination is to enhance traffic management activities and reduce the impacts of incident congestion; no procedures in this manual should be construed as replacing existing incident response procedures.**

Several pages in the electronic version of this document include hyperlinks to allow the document to be used electronically. These links include the following:

- Linking the plan number shown in the summary tables (organized by incident type and location) directly to the applicable plan;
- Linking the alternate route plans with a list of emergency contacts for each jurisdiction and a list of items to consider when deploying an alternative route plan.

The document has been designed to be used and updated frequently. The maps have been developed using Geographical Information Systems (GIS) to make them easy to update as elements are installed. The maps currently show only those devices that are existing. As more devices are installed, the GIS database will be updated so the maps will reflect the new equipment.

By proactively utilizing the *Alternate Route Plan – Traffic Incident ManagemenResponse Manual*, the stakeholders will have a tool that allows them to proactively manage surface street traffic during incidents and realize the full benefits of coordinated traffic management between public agencies and public safety.

I. OVERVIEW

A. Background

The San Mateo Incident Management Committee (IMC), led by C/CAG and comprised of representatives of local cities (including public works, fire and police departments), Caltrans Operations and Traffic Management divisions, California Highway Patrol (CHP), Metropolitan Transportation Commission (MTC), San Francisco International Airport (SFO), County Office of Emergency Services (OES), and San Mateo County Transportation Authority (SMCTA), initiated an effort to develop Alternative Route Plans for San Mateo County freeway system. This project focuses on developing formalized traffic incident management response plans for preplanned alternative routes to be utilized in instances of major traffic incidents on the freeway system. The IMC identified parallel arterial streets that are the best candidates as alternative routes for moving a higher demand of traffic during incidents and seek to contain and/or minimize the impacts of the diverted traffic onto the local street network. During such incidents and when it is desirable to direct traffic off the freeway and onto an alternative route on local streets, coordination between Caltrans, CHP, local agency public safety, and local agency public works staff is essential.

Several meetings and workshops were held to discuss the best approach to manage the incidents and to implement the alternate routes. C/CAG worked closely with the local agency public works and local public safety staff over meetings and workshops on this effort. A bottom-up process was used in selecting the alternate routes for the hypothetical incidents. Local agency cities, public works and public safety were involved in the route selection process. Their list of criteria and considerations were used as input in coming up with the alternate routes. Alternative routes were identified by the local agencies; these alternative routes typically use parallel arterial streets that are the best candidates for moving a higher demand of traffic during incidents. These routes have been chosen to manage and minimize the impacts of the diverted traffic onto the local street network.

After the routes were formulated, another workshop was held with public works and agencies, CHP and Caltrans to coordinate response on incidents. *Traffic Incident Management (TIM) Response Manual* was introduced to the agencies which comprises of all the possible incidents and their respective alternate routes, and other elements to be deployed. It serves as a handbook during incidents for the deployment personnel.

B. Purpose and Organization of the Manual

The purpose of the *Traffic Incident Management Response Manual* is to increase the coordination between CHP, Caltrans, local agency public safety, and local agency public works staff in San Mateo County during a freeway incident when it is desirable to direct traffic along alternative routes on other freeways or local streets. **This goal of this coordination is to reduce the traffic management response time in incident management; no procedures in this manual that should be construed as replacing existing incident response procedures.** By proactively utilizing the *Alternate Route Plan – Traffic Incident Management Response Manual*, the stakeholders will have a tool that allows them to proactively manage surface street traffic

during incidents and realize the full benefits of coordinated traffic management between public agencies and public safety.

In general the manual consists of alternative route plans and agency response plans:

- **Alternative Route Plans**—These graphics indicate pre-selected alternative routes as well as the elements that may be used to support the implementation of the alternative route for diverted traffic in response to specific incidents on freeways. Additional detail on Alternative Route Plan elements are included later in this section.
- **Agency Response Plans**— Traffic Management Communications Diagram and Response Plan Matrix illustrate the communications links and list the actions between of various agencies responsible for traffic incident management in response to freeway incidents.

This handbook is organized into three sections as follows:

- **I. Overview**—this section includes the purpose and background for the development of the Traffic Management approach in development of plans, alternative route plan elements and traffic management communications flow diagram.
- **II. Agency Coordination and Resources**—this section includes details for agency communications and implementation plan resources for traffic management, including a communications flow diagram, traffic management response plan matrix, locations of freeway Changeable Message Signs (CMS) and emergency contact list.
- **III. Alternative Route Plans**—this section contains the alternative route plans along with summary tables for quick look up by incident type and incident location.

C. Alternative Route Plan Elements

Alternative Routes Plans have been developed for the following freeway segments in San Mateo County:

- United States (US) 101—from San Francisco County line to Santa Clara County line
- Interstate 280 (I-280)—from San Francisco County line to State Route 92 (SR 92)
- Interstate 380 (I-380)—from US 101 to I-280
- SR-92—from Alameda County line (San Mateo Bridge) to I-280

Individual Alternative Route Plans have been developed in response to specific incident locations on the freeway system. Each Alternative Route Plan consists of the alternative route as well as elements used to support the implementation of these Alternative Route Plans. Although some of these elements do not currently exist along the alternative routes, they will be part of the overall system deployment at some time in the future.

Alternative Route—these typically consist of several components: freeway off-ramp, local street connector to the parallel arterial street, parallel arterial street, local street connector from the parallel arterial street and the freeway on-ramp and the freeway on-ramp.

Traffic Signals and flush plans (future)—traffic signals assign right-of-way for traffic along local streets. Flush plans provide increased throughput capacity for local streets by adjusting the

signal timing to provide extended green times along the parallel arterial street and the local street connectors to and from the freeway to move greater amounts of traffic. There are no flush plans currently developed or in use along the alternative routes.

On-Ramp Meters—these meters adjust on-ramp flow rates upstream and downstream of the incident in response to freeway traffic. Flow rate for on-ramps upstream of the freeway incident would become more restrictive as congestion grows, while flow rate for on-ramps at the end of diversion routes would be come less restrictive (or turned off), helping diverted traffic clear local streets more quickly. On-ramp metering based on local sensors is in the process of being implemented by Caltrans. Future features may include coordination with other traffic signals and central systems.

Personnel Deployment— staff from local agencies (e.g., local police or public works) may need to provide traffic control and enforcement of diversion at key decision points along the alternative route and to direct local street traffic away from entering the impacted freeway section. Static detour signs may be used in conjunction with or in lieu of personnel deployment locations. Personnel deployment locations and staff type would be at discretion of local agency depending on situation.

Freeway Changeable Message Signs—these signs provide incident and route guidance information to traffic upstream from the incident. These are controlled by Caltrans and are an integral part of disseminating traffic and incident information to drivers on the freeway. A map showing relevant CMS signs for the County is included in Section II (Agency Coordination and Resources) for reference only. Message content is often determined "on-the-fly" by Caltrans operators based on the current needs.

CCTV Cameras (future)—fixed and pan-tilt-zoom (PTZ) cameras may be used to monitor traffic flow and conditions at key locations along the alternative route to determine the severity of the diversion flow and the effectiveness of traffic management efforts. Fixed cameras are typically installed at intersections (covering the major approaches), while the placement of PTZ cameras is more flexible.

Electronic trailblazer signs (future)—these signs would provide route guidance for the diverted freeway traffic along the alternative route as well as directing local street traffic away from entering the impacted freeway section. Installation of these devices may be used to replace the personnel deployment locations.

II. AGENCY COORDINATION AND RESOURCES

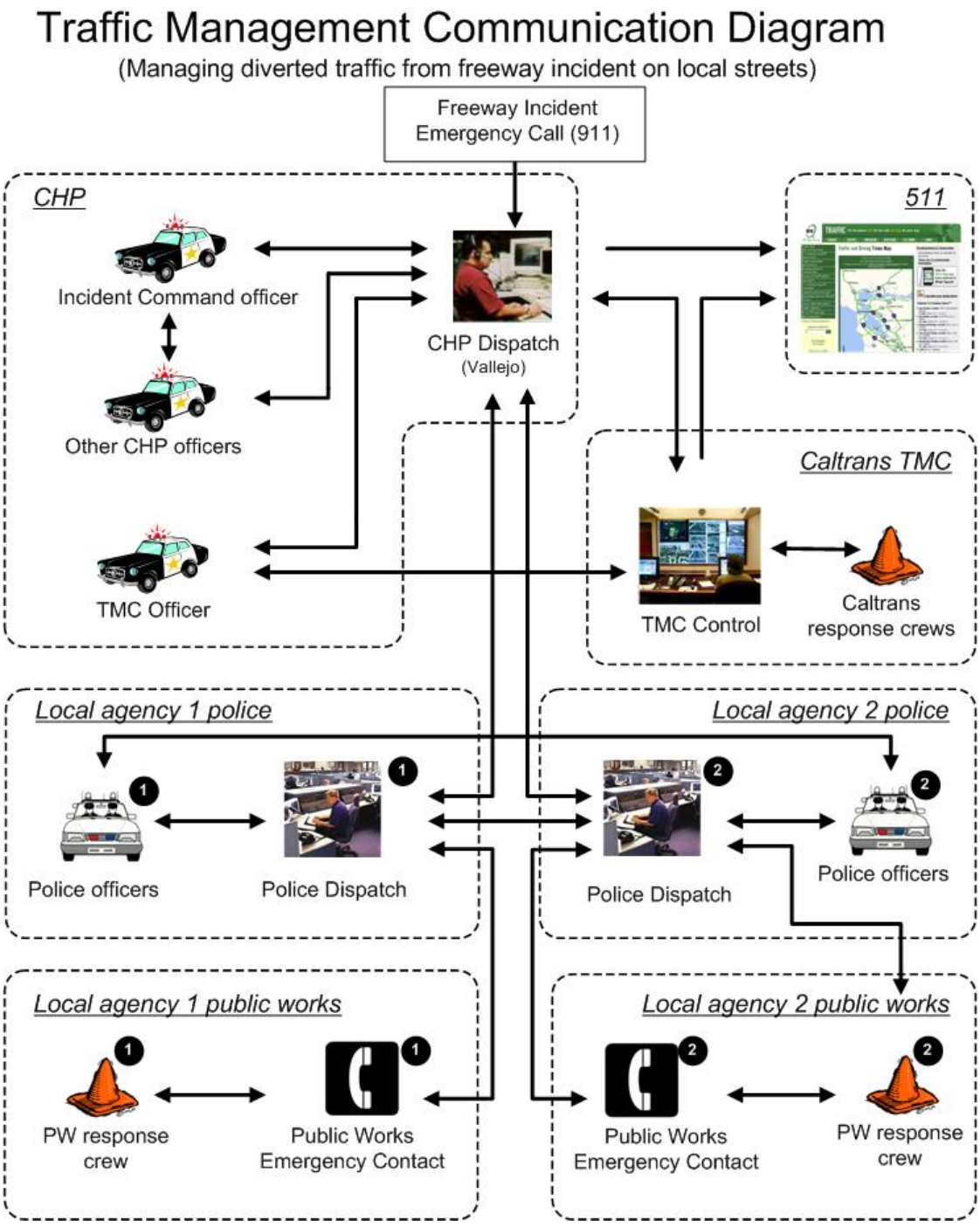
This section includes the following items used for coordinating between traffic incident management response between agencies:

- **Traffic Management Communications Diagram**—this graphic illustrates the communications flows between various agencies. The flow of timely information to responsible agencies is necessary to minimize traffic management response time.
- **Traffic Management Response Plan Matrix**—this matrix lists the various action items by agency in response to various levels of freeway incident severity
- **Freeway Changeable Message Signs locations**—this map provides an overview of the Caltrans Freeway CMS that may be used in response to a freeway incident in San Mateo County.
- **Alternative Route Plan Emergency Contact List**—this list contains telephone numbers to be used for tactical coordination and communications between agencies during active incidents only. For communications on non-emergency (e.g. administrative) matters, general purpose numbers should be used.

A. Traffic Management Diagram

Figure 1: Traffic Management Communications Diagram illustrates the communications flows between the various agencies involved in implementing the alternative routes in response to an incident on the freeway and when managing diverted traffic on local streets. These agencies include the CHP, Caltrans Transportation Management Center (TMC), 511, local agency police and local agency public works.

Figure 1: Traffic Management Communications Diagram



Freeway Traffic Coordination

The traffic management incident response begins with a freeway incident emergency call (usually 911) that is routed to CHP Dispatch. This emergency call contains the location of the incident and may include a preliminary estimate of the severity of the incident. Upon receiving the emergency call, the CHP Dispatch works with CHP field units to verify the incident. If the incident is severe enough, an Incident Command (IC) is established and the IC officer, supporting CHP officers and CHP Dispatch work together to manage the incident. CHP-to-CHP communications are done using radio. CHP Dispatch also coordinates with Caltrans TMC Control by sharing the severity (number of lanes closed), expected duration of the incident, and other special considerations (e.g., lifting of HOV and/or truck restrictions, hazardous materials involvement and damage to freeway facilities requiring immediate action) using a mixture of messaging over the CAD system, email and telephone. A CHP officer is always on duty at the TMC to assist with coordination between Caltrans and CHP. Caltrans TMC operators may verify the incident and traffic conditions, posting messages on freeway Changeable Message Signs (CMS) or dispatching Caltrans response crews to close roadways, initiate emergency repair, etc). (Caltrans TMC also sends out pager alerts on new incidents and subsequent updates, but no local police agencies in San Mateo County currently receive them.) 511 receives information about incidents via a data feed from CHP Dispatch and Caltrans messaging and massages this information into a format to be displayed to the public.

Local Streets Coordination

For coordinating traffic management on local streets, CHP Dispatch can also pass along information from the IC officer to various local agency Police Dispatch regarding the presence of freeway incidents and traffic diversion (voluntarily or involuntarily) onto local streets. A local agency Police Dispatch coordinates with the local agency's police officers and public works staff to respond to and manage the diverted traffic on their streets. Local agency police-to-police communications is done over radio. Some local agency Police Dispatch have direct contact with public works response crews (either over cell phone/ Nextel or radio) while other Police Dispatch may work with a Public Works coordinator (usually over cell phone/ Nextel). In situations where the diverted traffic may affect more than one local agency, local agency Police Dispatches may coordinate with each other over radio and the police officers of various local agencies can also communicate with each other directly over radio. (Currently, CHP officers do not typically communicate directly with local agency police officers over radio.)

B. Traffic Management Response Plan

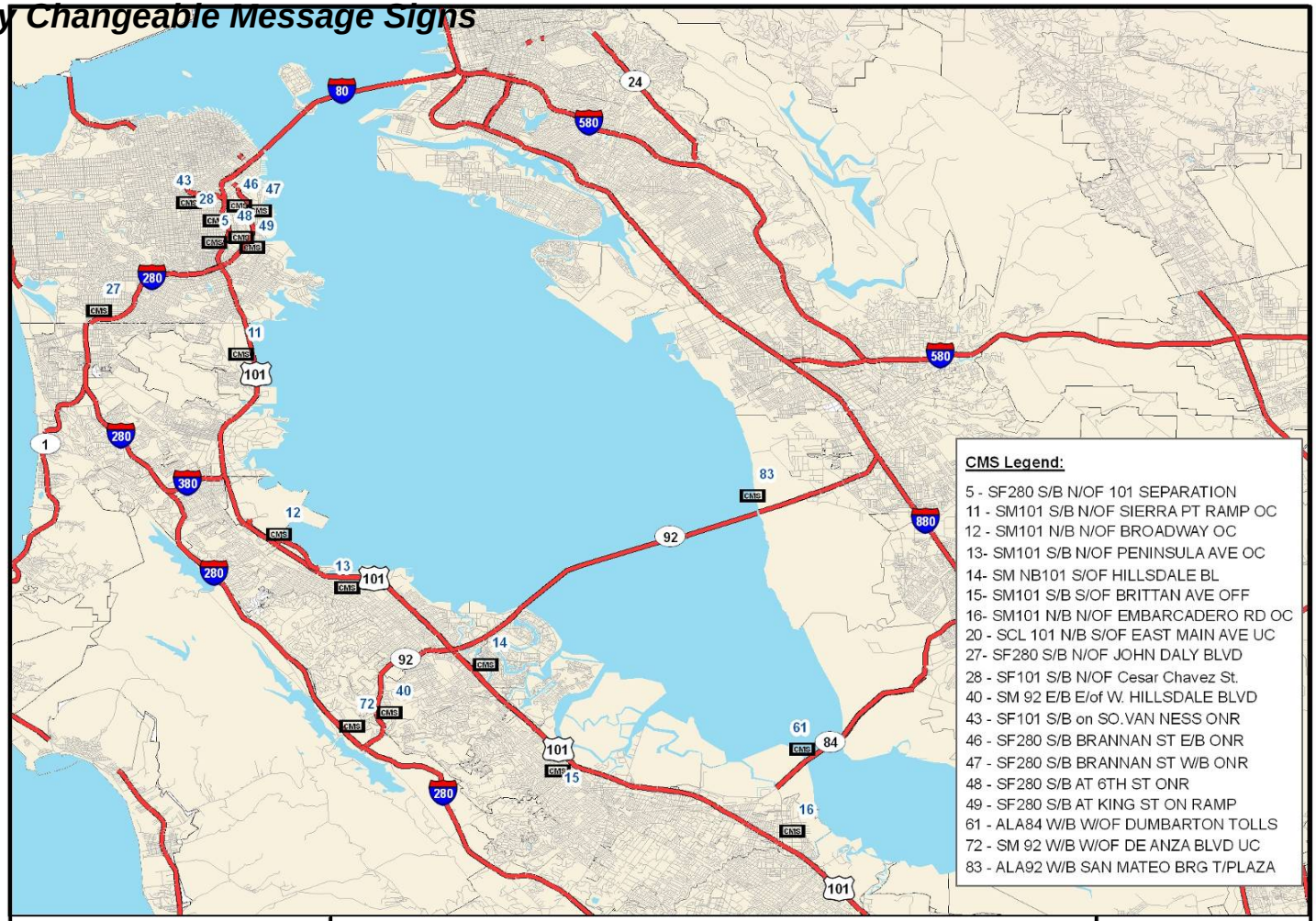
When an incident occurs, the first and foremost task is to judge the severity level of the accident. Depending on the severity level, the response is allocated. A Traffic Management Response Plan Matrix is created to facilitate the response to the incident.

The matrix includes further detail of the specific actions for various agencies in response to various severity levels for freeway incidents. In general, severity levels correspond to the percentage of the lanes blocked and expected duration of the roadway impacts. The severity level is a subjective call made by the CHP IC and CHP Dispatch.

Traffic Management Response Plan Matrix

Level	Impact to Roadway	Traffic Management Actions to be Taken				
		First Responder or Incident Commander	CHP Dispatch	Caltrans	Local Agencies	
					Public Works	Police
Minor (Level 1)	Impact to traveled roadway estimated to be less than 30 minutes with no lane blockage.	➢ First responding unit reports severity of the incident to dispatch	➢ CHP dispatch reports information to Caltrans District 4 TMC	➢ Caltrans TMC will: – Monitor video and freeway conditions – Update information to CHP	No Action	- At the request of CHP, local police agencies may verify minor incidents. - Previously defined Emergency Response Plan
Intermediate (Level 2)	Impact to traveled roadway estimated to be greater than 30 minutes, but less than 2 hours with at least 50% lane blockages, but not a full closure of the roadway.	➢ First responding unit reports severity of the incident to dispatch ➢ CHP considers implementing alternative route	➢ CHP dispatch reports information to Caltrans District 4 TMC – Dispatch personnel to the incident to manage traffic – Coordinate with CHP at TMC	➢ Caltrans TMC will: – Monitor video and freeway conditions – Update local agencies on traffic information	Manage traffic on local streets as required	- Manage traffic on local streets as required - Previously defined Emergency Response Plan
Major (Level 3)	Congestive impact to traveled roadway is estimated to be greater than 2 hours or roadway is fully closed in any single direction. If the traffic incident is anticipated to last more than 24 hours, applicable procedures and devices set forth in Part 6 of the MUTCD should be used.	➢ First responding unit reports severity of the incident to dispatch ➢ CHP implements alternative route in consultation with local agencies – Close and reopen freeway lanes and ramps – Coordinate with local agencies to close and reopen local streets as needed – Coordinate with local agency public works and law enforcement to inspect and implement alternate routes	➢ CHP dispatch reports information to Caltrans District 4 TMC – Dispatch personnel to the incident to manage traffic – Coordinate with CHP at TMC	➢ Caltrans TMC will: – Monitor video and freeway conditions – Update local agencies on traffic information – Identify and activate freeway alternate routes	- Coordinate with CHP and Caltrans through local dispatch - Manage traffic on local streets as required - Provide alternate route information to Caltrans TMC - Coordinate with adjacent agencies along the alternate route	- Manage traffic on local streets as required - Previously defined Emergency Response Plan

C. Freeway Changeable Message Signs



INCIDENT MANAGEMENT - ALTERNATIVE ROUTE PLAN PROJECT
Changeable Message Signs - Part 1

III. ALTERNATIVE ROUTE PLANS

This section contains alternative route plans developed for incidents within the limits of State Routes listed in Section I (Overview). The overall list of Alternative Routes is arranged as follows:

- Southbound US 101 from North to South
- Northbound US 101 from South to North
- Southbound I-280 from North to South
- Northbound I-280 from South to North
- Westbound I-380 from East to West
- Eastbound I-380 from West to East
- Westbound SR 92 from East to West
- Eastbound SR 92 from West to East

In general, the alternative routes divert traffic from the freeway at the nearest upstream exit onto a parallel arterial to travel past the incident and then reentering the original freeway. **In some instances, due to the severity of the incident and/or amount of queue build-up, it may be advisable to implement the alternative route further upstream and to connect several alternative plans together past the incident.**

Special freeway-to-freeway plans and interchange failure plans for selected movements have also been developed. The freeway-to-freeway plans may be used for severe incidents where the freeway may be entirely or substantially blocked and traffic should also be diverted to other freeways in order to avoid heavy traffic volumes on local streets. The interchange failure plans include all loop ramps, as well as other major interchange movements, and may be used when an incident on a loop ramp prevents traffic from using the interchange to travel to another freeway.

A. Alternative Route Plan Layout

The alternative route plans were prepared using Geographical Information Systems (GIS), a mapping software that creates, stores and manages spatial data and associated attributes. The locations of incident locations, alternative routes, and plan elements (both existing and future) were entered into the GIS database for this project allowing for tailor-made maps and views. This will allow future updates to the maps (e.g., as planned elements are installed) to be easily generated. Each alternative route plan is one page and includes the following items to help with the selection and implementation of a plan (as applicable). Further details on these alternative route plan elements is included in Section I (Overview).

- incident location
- alternative route path
- existing infrastructure along the route (traffic signals, ramp meters)

- locations for suggested personnel deployment. (These deployments are primarily for traffic control and will be staffed depending on specific traffic flow patterns and available resources.)
- locations of nearby Changeable Message Signs (CMS) on State Routes
- future infrastructure, including pan-tilt-zoom (PTZ) cameras, fixed intersection cameras, and trailblazer signs. (Plans should be updated as these elements are installed.)
- jurisdictions along the alternative route path
- adjacent jurisdictions upstream of incident (that may be impacted by congestion)
- link to emergency telephone numbers (for emergency tactical response). (These phone numbers will be printed on the back for hard copies.)

B. Alternative Plan Numbering Convention

Each Alternative Route Plan is assigned a plan number that summarizes the following information:

- Freeway
- travel direction
- exit number where the route begins
- Route number

For example, Plan No. 101-S-426-1 would indicate the alternative route plan for US 101, in the southbound direction, starting at exit 426, using alternative route 1.

C. Alternative Routes by Incident Location

The following tables provides a quick reference from the plan type (freeway-to-freeway, interchange failure, local arterial) and location of the incident to the nearest Alternative Route plan number.

- Table 1: Freeway-to-freeway alternative route plans
- Table 2: Interchange failure alternative route plans
- Table 3: Local arterial alternative route plans

Each table is grouped by originating freeway and includes the incident location, potentially impacted jurisdictions and the alternative route plan number. As mentioned previously, **in some instances, due to the severity of the incident and/or amount of queue build-up, it may be advisable to implement the alternative route further upstream and to connect several alternative plans together past the incident.** The electronic version of this document includes hyperlinks to allow the document to used electronically. These links include the following:

- Linking the plan number shown in the summary tables (organized by incident type and location) directly to the applicable plan
- Linking the alternative route plans with a pull up of the list of emergency contacts for each jurisdiction and a list of items to consider when deploying an alternative route plan.

TABLE 1: FREEWAY-TO-FREEWAY ALTERNATIVE ROUTE PLANS * Adjacent jurisdiction potentially impacted by congestion		
Incident Location	**Jurisdiction**	**Plan**
US 101 ALTERNATIVE ROUTES		
SB 101 between I-380 and SR 92	San Mateo Foster City Burlingame Millbrae, San Bruno	101-S-423B-3
NB 101 between I-380 and SR 92	San Mateo Foster City Burlingame Millbrae San Bruno	101-N-414B-3
I-280 ALTERNATIVE ROUTES		
I-280 between I-380 and SR 92	San Mateo Foster City Burlingame Millbrae San Bruno	280-S-43A-1
I-280 between I-380 and SR 92	San Mateo Foster City Burlingame Millbrae San Bruno	280-N-33-2
SR-92 ALTERNATIVE ROUTES		
SR 92 between I-280 and US 101	San Mateo Foster City Burlingame Millbrae San Bruno	280-N-43B-1
SR 92 between I-280 and US 101	San Mateo Foster City Burlingame Millbrae San Bruno	92-W-13B-1

TABLE 2: INTERCHANGE FAILURE ALTERNATIVE ROUTE PLANS * Adjacent jurisdiction potentially impacted by congestion		
Incident Location	**Jurisdiction**	**Plan**
US 101 ALTERNATIVE ROUTE PLANS		
US 101 SB to I-380 EB loop ramp	South San Francisco	101-S-423A-1
US 101 SB to I-380 WB ramp thru I-380 W at El Camino Real	South San Francisco, San Bruno	101-S-423B-1
US 101 NB to I-380 WB ramp thru I-380 W at El Camino Real	South San Francisco, San Bruno	101-N-423A-2
I-280 ALTERNATIVE ROUTE PLANS		
I-280 SB to I-380 EB ramp thru I-380 E at El Camino Real.	South San Francisco, San Bruno	280-S-43B-2
I-280 NB to I-380 EB ramp thru I-380 E at El Camino Real.	South San Francisco, San Bruno	280-N-43A-2
SR 92 ALTERNATIVE ROUTE PLANS		
SR 92 WB to 101 SB loop ramp	San Mateo Foster City	92-W-12A-2
SR 92 WB to I-280 SB ramp thru SR 92 WB at Polhemus Rd	San Mateo	92-W-9A-1
SR 92 WB to I-280 NB ramp thru SR 92 WB at Polhemus Rd	San Mateo	92-W-9A-2
SR 92 EB to US 101 NB ramp thru SR 92 EB at El Camino Real	Foster City	92-E-12C-2
SR 92 EB to I-280 NB loop ramp	San Mateo	92-E-SR 35-1

TABLE 3: LOCAL ARTERIAL ALTERNATIVE ROUTE PLANS *Adjacent jurisdiction potentially impacted by congestion		
Incident Location	**Jurisdiction**	**Plan Number**
US 101 (SOUTHBOUND) ALTERNATIVE ROUTES		
SB 101 between Beatty Rd and Lagoon Wy	Brisbane, South San Francisco*, Daly City*	101-S-429A-1 101-S-429A-2
SB 101 between Lagoon Wy and Oyster Point Blvd	Brisbane, South San Francisco	101-S-426-1
SB 101 between Oyster Point Blvd and Produce Ave	South San Francisco	101-S-425A-1 101-S-425B-2
SB 101 between Grand Ave/Miller Ave and Produce Ave	South San Francisco	101-S-425B-1
SB 101 between Produce Ave and I-380	South San Francisco, San Bruno*	101-S-425A-2
SB 101 between WB Interstate 380 and Millbrae Ave	San Bruno, South San Francisco, Millbrae	101-S-423B-2
SB 101 between Millbrae Ave and Broadway	Millbrae, Burlingame, San Mateo*	101-S-421-1 101-S-421-2 101-S-421-3
SB 101 between Broadway and Popular Ave	Burlingame, San Mateo, Belmont*, Redwood City*	101-S-419B-1 101-S-419B-2
SB 101 between Poplar Ave and E. 4th Ave	San Mateo, Belmont*, Redwood City*	101-S-417-1
SB 101 between 3rd Ave and SB 101/ EB 92	San Mateo, Belmont*, Redwood City*	101-S-416-1
SB 101 between WB State Route 92 and Hillsdale Blvd.	San Mateo, Belmont*, Redwood City*	101-S-414B-1
SB 101 between Hillsdale Blvd and Ralston Ave	San Mateo, Belmont, Redwood City*, San Carlos*	101-S-414A-1
SB 101 between Ralston Ave and Harbor Blvd.	Belmont, San Carlos*	101-S-412-1 101-S-412-2 101-S-412-3
SB 101 between Harbor Blvd and Holly St.	Belmont, San Carlos, Redwood City*	101-S-412B-1
SB 101 between Holly St and Whipple Ave	San Carlos, Redwood City, Atherton*	101-S-411-1
SB 101 between Whipple Ave and Veterans Blvd.	Redwood City, Atherton*	101-S-409-1
SB 101 between Woodside Rd and Marsh Rd.	Redwood City, Menlo Park, North Fair Oaks*, Atherton*, East Palo Alto*	101-S-408-1 101-S-408-2
SB 101 between Marsh Rd. and Willow Rd	Menlo Park, Atherton*, East Palo Alto*, Santa Clara County*, Redwood City*, North Fair Oaks*	101-S-406-1 101-S-406-2
SB 101 between Marsh Rd. and University Ave	Menlo Park, Atherton, East Palo Alto*, Santa Clara County*	101-S-406-3
SB 101 between University Ave and	East Palo Alto, Santa	101-S-403-1

TABLE 3: LOCAL ARTERIAL ALTERNATIVE ROUTE PLANS *Adjacent jurisdiction potentially impacted by congestion		
Incident Location	**Jurisdiction**	**Plan Number**
Embarcadero Rd	Clara County	
US 101 (NORTHBOUND) ALTERNATIVE ROUTES		
NB 101 between Embarcadero Rd and University Ave	East Palo Alto, Santa Clara County	101-N-402-1
NB 101 between University Ave and Willow Rd	Menlo Park, East Palo Alto, Santa Clara County*, Redwood City*	101-N-403-1
NB 101 between Willow Rd and Marsh Rd	Menlo Park, East Palo Alto, Atherton*, Redwood City*, Santa Clara County*	101-N-404B-1 101-N-404B-2
NB 101 between Marsh Rd and Woodside Rd	Menlo Park, Atherton, North Fair Oaks, Redwood City, East Palo Alto*	101-N-406-1 101-N-406-2
NB 101 between Woodside Rd and Whipple Ave	San Carlos, Redwood City, Menlo Park*	101-N-408-1
NB 101 between Whipple Ave and Holly St	San Carlos, Redwood City, Menlo Park*	101-N-409-1
NB 101 between Holly St and Ralston Ave	San Carlos, Belmont, Redwood City, San Mateo*	101-N-411-1 101-N-411-2
NB 101 between Ralston Ave and Hillsdale Blvd	Belmont, San Mateo, San Carlos*	101-N-412-1
NB 101 between Hillsdale Blvd and Fashion Island Blvd	San Mateo, Foster City	101-N-414A-1 101-N-414A-2
NB 101 between WB State Route 92 and E. 3rd Ave	San Mateo, Foster City*	101-N-414B-1 101-N-414B-2
NB 101 between Kehoe Ave and 3rd Ave	San Mateo	101-N-415-1
NB 101 between 3rd Ave and Coyote Point Dr.	San Mateo, Burlingame*	101-N-416-1
NB 101 between Dore Ave and Bayshore Blvd	San Mateo	101-N-417A-1
NB 101 between Coyote Point Dr/ Penninsula Ave and Anza Blvd	San Mateo, Burlingame, Millbrae*	101-N-417B-1
NB 101 between Anza Blvd and Bayshore Hwy	Burlingame	101-N-419A-1
NB 101 between Broadway and Millbrae Ave	Burlingame, Millbrae	101-N-419B-1 101-N-419B-2
NB 101 between Millbrae Ave and EB Interstate 380	Millbrae, San Bruno, South San Francisco	101-N-421-1
NB 101 between San Bruno Ave and Airport Blvd	San Bruno, South San Francisco	101-N-423A-1
NB 101 between EB Interstate 380 and Airport Blvd	South San Francisco, San Bruno, Brisbane*	101-N-423C-1
NB 101 between Wondercolor Ln and Interstate 380	South San Francisco	101-N-423C-2
NB 101 between Wondercolor Ln and Grand Avenue	South San Francisco, Brisbane*	101-N-424-1 101-N-424-2
NB 101 between Grand Ave and Oyster Point Blvd	South San Francisco, Brisbane*	101-N-425A-1 101-N-425A-2

TABLE 3: LOCAL ARTERIAL ALTERNATIVE ROUTE PLANS *Adjacent jurisdiction potentially impacted by congestion		
Incident Location	**Jurisdiction**	**Plan Number**
NB 101 between Brisbane/Cow Palace and 3rd St	South San Francisco, Brisbane	101-N-426A-1
I-280 (SOUTHBOUND) ALTERNATIVE ROUTES		
SB 280 between John Daly Blvd and Hickey Blvd	Daly City, South San Francisco, Colma	280-S-49-1
SB 280 between Highway 1 and Hickey Blvd	Daly City, Colma, South San Francisco*	280-S-47B-1
SB 280 between Hickey Blvd and Westborough Blvd	Daly City, South San Francisco	280-S-46-1
SB 280 between Westborough Blvd and Sneath Ln	South San Francisco, San Bruno, Millbrae*	280-S-45-1
SB 280 between Sneath Lane and Skyline Blvd	San Bruno, Millbrae*	280-S-43B-1
SB 280 between Skyline Blvd and Larkspur Dr		No viable alt. route
SB 280 between Larkspur Dr and Hillcrest Blvd	Millbrae, Burlingame*	280-S-41-1
SB 280 between Hillcrest Blvd and Trousdale Dr		No viable alt. route
SB 280 between Trousdale Dr and Hayne Dr	Hillsborough	280-S-39-1
SB 280 between Hayne Dr and Bunker Hill Rd	Hillsborough, San Mateo*	280-S-36-1
SB 280 between Bunker Hill Rd and SR 92	San Mateo, Belmont*	280-S-34-1
I-280 (NORTHBOUND) ALTERNATIVE ROUTES		
NB 280 between SR 92 and Bunker Hill Rd	San Mateo, Belmont*	280-N-33-1
NB 280 between Bunker Hill Rd and Hayne Dr	Hillsborough, San Mateo	280-N-34-1
NB 280 between Hayne Dr and Trousdale Dr	Millbrae, Burlingame, Hillsborough, San Mateo, Belmont*	280-N-36-1
NB 280 between Trousdale Dr and Hillcrest Blvd		No viable alt. route
NB 280 between Hillcrest Blvd and Larkspur Dr	Millbrae, San Bruno*	280-N-40-1
NB 280 between Larkspur Dr and Skyline Blvd		No viable alt. route
NB 280 between Skyline Blvd / Crystal Springs Rd and Sneath Ln	Millbrae, San Bruno, South San Francisco*	280-N-41-1
NB 280 between San Bruno Ave and Westborough Blvd	South San Francisco, San Bruno, Daly City*	280-N-43A-1
NB 280 between Westborough Blvd and Serramonte Blvd	South San Francisco, San Bruno, Daly City	280-N-44-1
NB 280 between Hickey Blvd and Junipero Serra Blvd	Daly City, South San Francisco, Colma	280-N-46-1
NB 280 between Junipero Serra Blvd and John Daly Blvd	Daly City, South San Francisco, Colma	280-N-47-1
I-380 (WESTBOUND) ALTERNATIVE ROUTES		
WB 380 between US 101/ San Bruno Ave and El Camino Real	South San Francisco, San Bruno, Millbrae*	101-N-423A-2 101-S-423B-1
WB 380 between El Camino Real and San Bruno Ave	South San Francisco*, San Bruno	380-W-5C-1

TABLE 3: LOCAL ARTERIAL ALTERNATIVE ROUTE PLANS *Adjacent jurisdiction potentially impacted by congestion		
Incident Location	**Jurisdiction**	**Plan Number**
I-380 (EASTBOUND) ALTERNATIVE ROUTES		
EB 380 between I-280/ San Bruno Ave and El Camino Real	South San Francisco*, San Bruno	280-N-43A-2 280-S-43B-2
EB 380 between El Camino Real and San Bruno Ave	South San Francisco, San Bruno	380-E-5-1
SR 92 (WESTBOUND) ALTERNATIVE ROUTES		
WB 92 between Foster City Blvd and Baker Wy	Foster City, San Mateo	92-W-14B-1
WB 92 between Baker Wy and US 101	San Mateo, Foster City*	92-W-14A-1
WB 92 between SB US 101 and Delaware St	San Mateo	92-W-13A-1
WB 92 between Delaware St and El Camino Real	San Mateo	92-W-12C-1
WB 92 between El Camino Real and Alameda de Las Pulgas	San Mateo	92-W-12A-1
WB 92 between Alameda de Las Pulgas and Ralston Ave	San Mateo, Belmont, Hillsborough*	92-W-11-1
WB 92 between De Anza Blvd and Polhemus Rd/ Ralston Av	San Mateo, Belmont*	92-W-9B-1
WB 92 between Polhemus Rd/ Ralston Av and SB I-280	San Mateo, Hillsborough*	92-W-9A-1 92-W-9A-2
SR 92 (EASTBOUND) ALTERNATIVE ROUTES		
EB 92 between SB I-280/ Hayne Dr and Polhemus Rd/ Ralston Av	San Mateo, Hillsborough, Belmont*	280-S-36-2
EB 92 between Ralston Av and Alameda de Las Pulgas	San Mateo, Belmont	92-E-9A-1
EB 92 between Hillsdale Blvd and Alameda de Las Pulgas	San Mateo, Hillsborough*	92-E-10-1
EB 92 between Alameda de Las Pulgas and El Camino Real	San Mateo	92-E-11-1
EB 92 between El Camino Real and Delaware St	San Mateo	92-E-12A-1
EB 92 between Delaware St and US 101/ Hillsdale Blvd	San Mateo, Foster City*	92-E-12C-1
EB 92 between SB US 101 and Edgewater Blvd/ Mariners Island Blvd	San Mateo, Foster City	92-E-13A-1
EB 92 between Edgewater Blvd/ Mariners Island Blvd and Foster City Blvd	San Mateo, Foster City	92-E-14A-1

San Mateo County Smart Corridors Project

PROJECT FACT SHEET
Revised 01/17/08

Project Description

The San Mateo County Smart Corridors Project will implement traffic incident management strategies by deploying ITS elements along state routes and major local streets such that these designated routes will have the tools to manage traffic congestion and improve mobility. The initial phase of the San Mateo County Smart Corridor Project includes the following corridors (see Vicinity Map):

Segment	Location	Limits	Total Cost (estimated)
1	SFO Vicinity	US 101 and SR 82 (El Camino Real) between I-380 and Peninsula Avenue	$10.8M
2	US 101/SR 92 I/C	US 101 and SR 82 (El Camino Real) between SR 92 and Holly Street and SR 92 between Edgewater Boulevard and SR 82 (El Camino Real)	$10.2M
3	US101/SR 84 I/C	US 101 and local streets between Redwood Shores Parkway and SC County Line	$9.M

The San Mateo County Smart Corridors Project will integrate:

- Traffic signal improvements (controller upgrades, transit signal priority/emergency preemption, signal coordination, flush plans;
- On-ramp metering (existing);
- Freeway changeable message signs (CMS);
- Arterial travel time data using a vehicle detection system;
- Arterial electronic trailblazer signs;
- Fixed and pan-tilt-zoom CCTV cameras;
- Caltrain at-grade rail crossing advanced warning equipment; and
- Communications network.

Project Purpose/Goal

The San Mateo County Smart Corridors Project is a cooperative effort by the San Mateo City/County Association of Governments (C/CAG) and twenty-one local agencies. The purpose of this project is to implement Intelligent Transportation System (ITS) elements along state and local routes in San Mateo County to manage incident traffic congestion and improve mobility. The primary initial focus of the project will be to integrate technology-based improvements along portions of the following routes:

- US 101 from San Francisco county border to Santa Clara County border;
- State Route 92 (SR 92) between I-280 and the San Mateo Bridge;
- State Route 84 (SR 84) between US 101 and I-280;
- State Route 82 (SR 82, El Camino Real) between I-380 and SR 84; and
- Local connector streets between El Camino Real and US 101.

Providing traffic management tools along these corridors will enable Caltrans and the local agencies to:

- Proactively coordinate traffic management during incidents;
- Define clear alternative routes for drivers during incidents and special events;
- Promote the use of Caltrain and SamTrans as an alternative mode;
- Proactively manage traffic signals along major surface streets; and
- Achieve a balanced traffic flow.

The ultimate goal of the Smart Corridors program is to allow the participating agencies to better manage incidents and congestion along regional and local routes through ITS implementation. Providing these traffic management tools along these corridors will enable Caltrans and the local agencies to proactively coordinate traffic management during incidents; define clear alternative routes for drivers during incidents and special events; promote use of Caltrain and SamTrans as alternative modes of transportation; proactively manage traffic signals along major surface streets; and achieve a balanced traffic flow.

Project Benefits

San Mateo County currently has limited deployment of ITS tools to proactively manage traffic congestion, confined only to freeway Traffic Operations System (TOS) elements along US 101 and SR 92. By implementing the Smart Corridors Project, the following benefits could be expected:

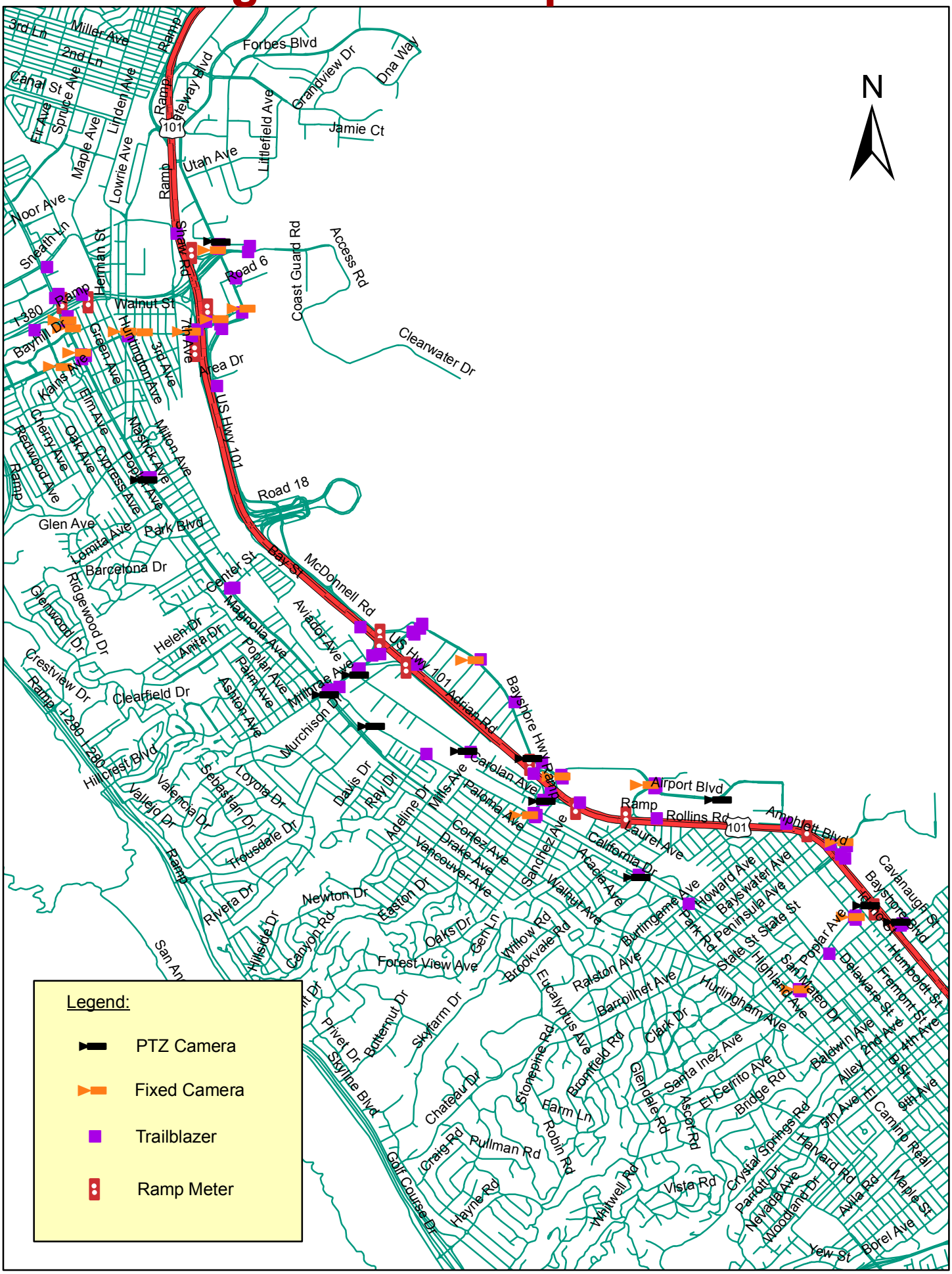
- Minimize the impact of freeway incident traffic on local streets through proactive traffic management;
- Ability to collect and disseminate arterial travel times;
- Ability to implement traffic responsive and time-of-day signal timing to improve traffic signal coordination and reduce delays along major corridors and freeway connectors;
- A responsive plan to effectively manage freeway traffic that utilizes local streets during freeway incidents;
- Ability to share traffic information between Caltrans and local agencies to improve coordination and management activities;
- Ability to collect and disseminate transit information to encourage alternative mode choices and create a multi-modal/multi-user system;
- Ability to provide accurate and timely information about the corridors to agency transportation managers and to public;
- Improved response to and clearing of incidents on freeways and surface streets

Project Participants

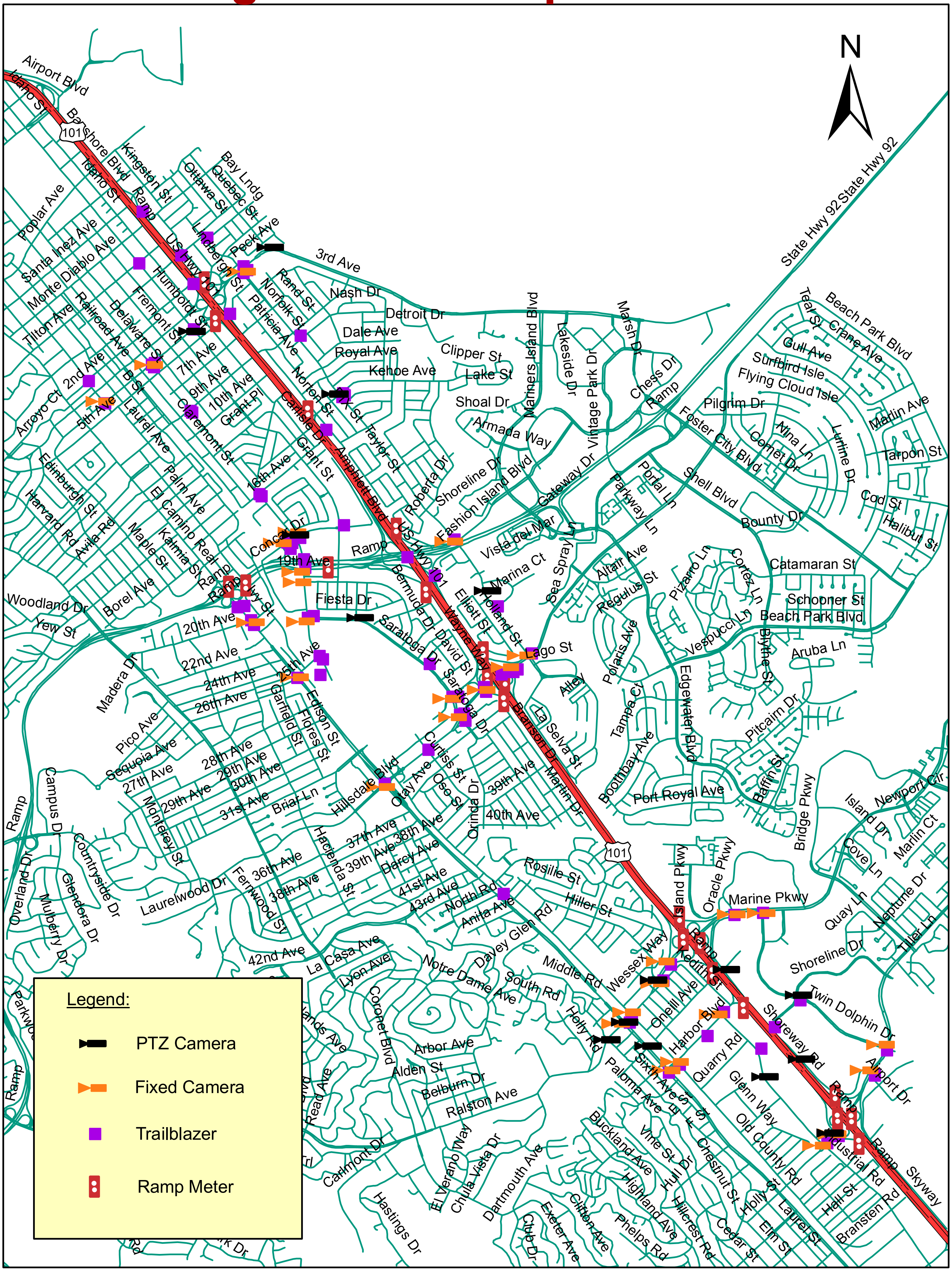
City of San Mateo	City of Menlo Park	City of Atherton
City of Millbrae	City of Foster City	City of East Palo Alto
City of San Bruno	City of San Carlos	City of Belmont
City of South San Francisco	City of Redwood City	California Highway Patrol (CHP)
City of Burlingame	Caltrans	San Francisco International Airport
MTC	San Mateo County TA	C/CAG
San Mateo County OES		

Project Contact
John Hoang, C/CAG
jhoang@co.sanmateo.ca.us
650-363-4105

Segment 1 - Proposed ITS



Segment 2 - Proposed ITS



Segment 3 - Proposed ITS